

Abstract of the Disclosure

A constant amplitude coded bi-orthogonal demodulator demodulates the received constant amplitude bi-orthogonal modulated data, cancels the parity bits to generate the
5 serial data, detects the occurrence of an error by dividing the demodulated data into a plurality of groups of data, outputs the serial data as demodulated data if an error does not occur, sequentially converts bit polarities of data of groups in which an error occurs if the error detector detects the error, compares distances between the received bi-orthogonal modulated data and the constant amplitude coded bi-orthogonal modulated data, and
10 selects, as demodulated data, data of which corresponding bit polarities are changed according to the comparison results.

According to the present invention, power consumption is reduced, a power amplifier can be manufactured at an inexpensive cost, interference robustness can be ensured, and data can be transmitted at a high transmission rate and a variable transmission
15 rate.